

CROWDSOURCING AS A TOOL OF INTERACTION BETWEEN THE POPULATION AND THE AUTHORITIES

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Abstract

The article discusses the possibility of introducing crowdsourcing in the practice of public administration. It also describes the use of the said technology for solution of a wide range of topical social problems. The article highlights the advantages, which potentially allow achieving a totally new level of governance. The authors analyze the results of study of the local communities' attitudes towards crowdsourcing and its potential use in state and public administration. The research respondents included representatives of the Russian population, as well as experts who either had a certain experience in crowdsourcing activities or who were involved in practical arrangement of such projects. Among the key areas of focus in the field of crowdsourcing application for improved functioning of public authorities, the respondents identify the following: control over the public authorities while solving the problems critical for the local population, informing the state bodies about such issues and development of relevant tech-savvy strategies for their solutions. The study results suggest that despite the need in such practice from the point of view of the regional population, the current level of crowdsourcing development is not enough for its active and efficient use, resulting in solution of social and state problems.

Key words: Crowdsourcing, public authorities, collective management, crowdsourcing platform, communication

JEL Code: H83, J48

Introduction

It is hard to deny that due to a number of factors the whole system of relations of people with other people and various institutions undergoes certain changes. Because of development of information technologies the society structure changes – it abandons national borders, and common usage of Internet leads to creation of a new virtual environment for a large group of people with its rules and conduct standards. The community of the network environment uses new instruments of communication, which are not only used on-line, but can be offline projected onto life. Particularly, they can be successfully introduced into public administration to improve the quality of provided government services and address

government challenges. Crowdsourcing is one of such instruments, which in principle, existed before, but which with the help of new technologies, has reached a completely new level of use.

The essence of crowdsourcing and its potential application

The term crowdsourcing (Eng. *crowdsourcing*, *crowd* – «a large number of people gathered together» and *sourcing* – «use of resources») has been already introduced in 2006 by *Jeff Howe*, a writer, and *Mark Robinson*, the editor of the *Wired* magazine. According to J. Howe crowdsourcing is a form of organization of work of engaged people with the help of the Internet, which allows solving problems by the government, business, society [Howe, 2012]. There is a large number of definitions of this phenomenon depending on the point of view from which it is being considered. The best summary of crowdsourcing interpretations is represented in the work by a group of authors [Estellés-Arolas E., González-Ladrón-de-Guevara F., 2012].

From the point of view of an organization crowdsourcing can be identified as the use of intellect and experience of a large number of clients, employees, engaged community, for searching new ideas to improve products, processes, services and/or evaluation of important decisions and documents of an organization.

From our point of view, there is a more modern definition of crowdsourcing as an approach to generation of ideas and search for solutions by an engaged community based on special technologies and methodology of community interaction and aimed at solving problems of various degree of complexity. The use of such a generalized definition, as we think, is preferable, because crowdsourcing as a technology is only emerging in this country, and its development trends have not been identified yet.

Modern crowdsourcing as a tool of use of public efforts and resources for the purpose of solving any problems is characterized by the following principles:

- 1) Voluntary participation in the project and voluntary performance of actions;
- 2) An available internet platform with the help of which communication and activity of participants are performed;
- 3) An available information filtering mechanism, as well as a mechanism of selection of the best suggestions and their authors;
- 4) Evaluation of suggestions, ideas, opinions, initiatives, as well as information materials to be discussed (texts, pictures etc.), is performed by the participants with simple voting tools.

One of the most modern trends of crowdsourcing use, according to many researchers, is its use in the field of public administration.

It needs to be noted that the topic of development of public administration field through application of information and communication technologies is extremely popular now. One of the key trends in this sphere is «e-government». However, as it was noted by Karen Layne, a large number of publications devoted to practical aspects of e-government activity, prevents public servants from implementation of best practices in their work [Layne, 2001]. Furthermore, in the situation of limited resources at the local level (financial, labor, and technical), for example, in the USA, development of e-government in municipalities is doubtful [Moon, 2002]. A similar survey conducted in 2012 in Europe, also demonstrated that at the level of individual territories the opportunities for the dialogue between the community and public authorities were limited, the authors of this survey assume that the concept of «e-government» is at the beginning of its development [Bonson, Torres, Royo, Flores, 2012].

At the same time, in the work by the group of scientists [Chun, Shulman, Sandaval, Hovy, 2010] devoted to the problems of the concept of «Government 2.0» it is indicated that crowdsourcing can become an instrument, which will allow extending opportunities of representative democracy and digital information market, which in its turn will make the process of public administration more balanced, aimed at satisfying the needs of the population. In the social system considered by them new ways of interaction between people allow implementing distributed partnership, exchanging information, using collective mind in the public sphere at various levels, from the local to the federal. T. Aitamurto [Aitamurto, 2012] has a similar opinion and in her work «Crowdsourcing for Democracy: A New Era in Policy-Making» she suggests a list of ways of crowdsourcing use for development of democratic processes. However, the majority of foreign researchers are quite skeptical about the opportunities of use of e-government technologies for involvement of the population in solving various problems in the field of public administration with the help of the internet at the current level of development [Chadwick, 2009]. To learn about the potential of crowdsourcing in one of the regions in Russia we have conducted a social research.

Description of research methodology

The purpose of the social research was to collect and analyze initial sociological information for evaluation of the prospects of creation of a specialized Internet platform, which will allow solving public problems by engaged members of the community with the

help of crowdsourcing.

The population of the Altai territory of the Russian Federation and a group of experts experienced in implementation and use of crowdsourcing in practice represented the object of the research.

The subject of research was identified as the attitude of the population under study to the potential use of crowdsourcing in practice for solving social issues.

To achieve the established purpose we have identified the research tasks in accordance with which we have put forward a number of hypotheses, to test which we have had to conduct an analytical and descriptive research.

The methods used for data collection are depth interviews with experts who introduced crowdsourcing in an organization activity (7 experts); structured interviews with people who have previously had experience of participation in crowdsourcing projects, including winners (12 participants); questionnaire survey of the population of the Altai territory of the RF (228 respondents). Participants for sampling study were selected by the quota sample method.

As a result of analysis of the information identified in interviews and questionnaire survey, we have received the following data.

Analysis of the outcomes of the study of the attitude to crowdsourcing as a form of interaction between the population and the government

We have received a total of 228 filled-in questionnaires from respondents, the majority of who has shown interest in participation in crowdsourcing activity (87,72% of the total number of respondents). Some respondents (18,35% of the total number) have noted that they are ready to spend 15-30 minutes per day for a crowdsourcing project, 1/5 of respondents think that they could participate in crowdsourcing depending on the project relevance. 13,59% of respondents are ready to participate in the project several times a week, and approximately the same number (14,56% respondents) not more often than once a week.

Another important point was the volunteer motives of the majority of respondents. About 75.44% of respondents noted that they have had to help strangers in solving relevant issues with the help of the Internet.

All respondents can be divided into 3 groups: those who are acquainted with crowdsourcing in practice (19,42% of respondents), those who have never participated in such projects and know very little about crowdsourcing potential (30,1% of respondents), and those who know nothing about crowdsourcing and have first heard about it during the interview

(50,48% of respondents). For information purposes the information part of the questionnaire contained one of the definitions of crowdsourcing and there were a number of examples of practical applications provided in the questionnaire. It helped the respondents to get an idea of the essence and application potential of this technology with the purpose to get some feedback from them as to its potential application in the region.

At the next stage of the sociological research we had to find out what was the respondents' attitude to potential application of crowdsourcing (Table 1).

Tab. 1: The respondents' attitude to crowdsourcing

Possible choices	Those who have already used it		Those who knew about it, but have never used it	
	Number of replies (people)	% of those who use it	Number of replies (people)	% of those who knew about it
Crowdsourcing is the thing of the future, it is a new type of relations between the population and the government;	18	40,91	24	34,78
Crowdsourcing will never become something remarkable in our life, but it will be used sometimes;	17	38,64	29	42,03
There is no potential. In this country there are no conditions for effective use of crowdsourcing;	6	13,64	11	15,94
There is no potential. Crowdsourcing is imperfect, has a number of faults making it an ineffective tool;	3	6,82	5	7,25
Don't know	-	-	-	-
Total	44	100	69	100

Source: the work by the author of this article

Those respondents who have already used crowdsourcing in practice in general have a more positive attitude (40,91% of them said that crowdsourcing has a potential), compared to those who have heard about it, but have never used it in practice (34,78% think that this phenomenon has a potential). At the same time, among «inexperienced» respondents the share of those who think that crowdsourcing has no future in public administration is also greater.

As the next step, we tried to establish in which ways it was more effective to use crowdsourcing to improve the operation of public administration authorities?

Interviewing demonstrated that for respondents, in the first place, the most attractive was to use crowdsourcing to control public administration authorities, which allows solving

problems and issues critical to the population (60,4% of respondents have chosen this option). The choice of «informing the state authorities about the problems relevant to the population ranked second (54,2% of respondents have chosen this option). The most developed way of using crowdsourcing from the point of view of existing practice, i.e. «beta-testing products/services created by public authorities for the community of the region», had the share of 45,8% of the respondents' choice. The same numbers of choices were made in favor of «search of lost people» (also 45,8% of respondents). The option of «fund raising for solving problems critical to the population» was chosen by 37,5 % of respondents. And finally, the least important from the respondents' point of view was the possibility to make ratings of public organizations, public authorities, public officers (22,9% of respondents made their choice in favor of this option).

Then we tried to find out from respondents, which reasons, in their opinion, were preventing the broad use of crowdsourcing for solving critical issues, what was needed for successful development of the relevant site? Distribution of replies to the relevant question is shown in table 2.

Tab. 2: Reasons preventing the creation of a specialized crowdsourcing platform for the region at this point in time according to respondents

Options	Total	
	Number of replies (people)	% of respondents
Inaction of public authorities	36	15,79%
No information support from the media	28	12,28%
The population is not interested in this site	140	61,4%
Lack of funding (for site creation and support)	24	10,53%
Respondents, total	228	

Source: the work by the author of this article

It has to be noted that all of the options were chosen by some respondents. From the point of view of respondents, the key bottlenecks for crowdsourcing use are absence of a specialized site and a high cost of its creation. The experts, on the other hand, think that the main bottleneck is that the population is not interested in this site. About 61% of respondents think so.

One of the main tasks of our research is to evaluate the preferences in the use of various incentives to work on a crowdsourcing platform. The specific features of motivation of crowdsourcing participants are represented in [Goncalves, J., Hosio, S., Rogstadius, J.,

Karapanos, E., Kostakos, V., 2015]. Therefore, we have included a relevant question into the questionnaire. Distribution of replies is demonstrated in table 3.

Tab. 3: Incentives for the site-platform users to engage in crowdsourcing activity

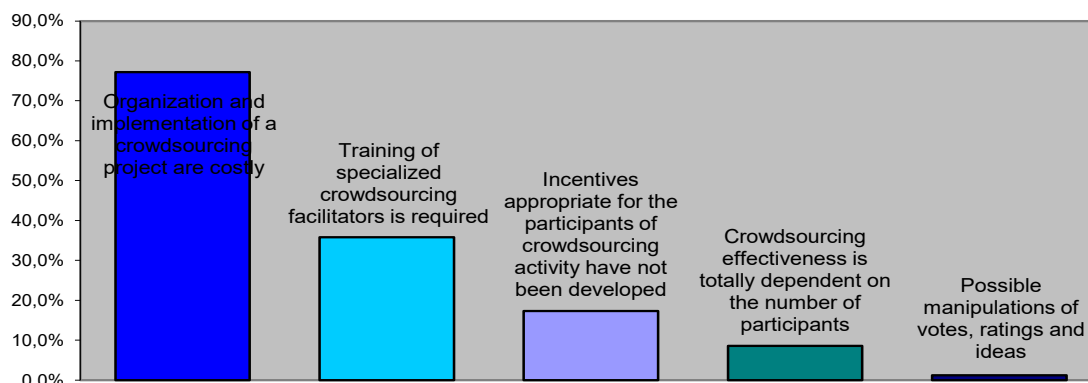
Possible replies	Total	
	Number of replies (people)	% of respondents
Financial incentive (awards and prizes)	121	53,07%
Non-financial incentives	26	11,40%
Incentives are not practical, since this activity is voluntary in its nature	2	0,88%
The opportunity to demonstrate one's talents	8	3,51%
Nothing would be an incentive, there is and will be no wish	0	0%
Don't know	71	31,14%
Respondents, total	228	100

Source: the work by the author of this article

A large number of respondents, as it was expected, have chosen «financial incentives, e.g. awards or prizes» (53,07% of respondents). Only 0,88% of respondents think that incentives are not practical, because this type of activity is similar to voluntary activity. About a third of respondents didn't know the answer to the question. Research shows that the use of financial incentives in crowdsourcing increases the amount of offers from participants but in no way improves their efficiency (i.e. the quality of offers does not improve) [Malone T.W., 2009].

Then we tried to identify the main problems that crowdsourcing organizers can come across with, as well as key faults of crowdsourcing activity, since these issues, as we think, are significant to our research. We have identified the main problems mentioned by the experts, and used them as options for replies of respondents having experience in crowdsourcing activity. Distribution of replies to the relevant question is shown below (Fig. 1).

Fig. 1: Possible problems related to the use of crowdsourcing in practice



Source: the work by the author of this article

And finally, with the purpose to identify ways to increase effectiveness of crowdsourcing use we have included a half-closed question into the questionnaire. Distribution of replies is shown in table 4.

Tab. 4: Possible ways of crowd sourcing development in Russian practice according to respondents (several options could be chosen)

Options	Total	
	Number of replies (people)	% of respondents
Issue of manuals, recommendations and guidance materials on crowdsourcing issues	40	35,71%
Legal crowdsourcing regulation by the government	28	25%
Creation of the relevant crowdsourcing Internet platform	80	71,43%
Conferences, round tables and similar events devoted to crowdsourcing	56	50%
Standards for crowdsourcing activity	28	25%
Training of crowdsourcing experts	48	42,86%
Respondents, total	112	

Source: the work by the author of this article

The respondents could choose several options to reply this question, and as the table shows, all the options were chosen, all of them are relevant (to a certain degree) for respondents. One of the most important tools for further crowdsourcing development in Russian practice were identified as «creation of the relevant crowdsourcing platform» (71,43% of respondents), and training of crowdsourcing experts (42,86% of respondents). Half of respondents think that it is reasonable to increase public awareness through conferences, round tables and other similar events, one third think that distribution of

guidance materials on crowd sourcing is required.

These are the outcomes of our research, and we hope that they will become the base for understanding ways of further crowdsourcing use for solving various problems.

Conclusion

The key topic of study in this article was represented by crowdsourcing and its application for public, social and business purposes. On the one hand, it has a major potential, the government, communities, companies are only beginning to apply it in practice, on the other hand, the efforts to commercialize this technology, minimize costs of its implementation, to control the crowdsourcing community are limiting the possible crowdsourcing application.

The research has shown that crowdsourcing has a potential in the region, however, to use it a great amount of work needs to be done, which can require a long period of time, the important thing is that some part of the population are interested in participation in crowdsourcing activity.

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